UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,523	06/17/2005	Takeharu Takasawa	SONYJP3.3-1046	4544

530 7590 06/14/2007

LERNER, DAVID, LITTENBERG,
KRUMHOLZ & MENTLIK
600 SOUTH AVENUE WEST
WESTFIELD, NJ 07090

EXAMINER	
KAYRISH, MATTHEW	
ART UNIT	**PAPER NUMBER**
2627	

MAIL DATE	DELIVERY MODE
06/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/539,523	TAKASAWA ET AL.	
	Examiner	Art Unit	
	Matthew G. Kayrish	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,6-8 and 12-14* is/are rejected.

7)☒ Claim(s) *3-5 and 9-11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 June 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al (US Patent Number 6215612), in view of Tsunekawa (US Patent Number 6095447).

Regarding claim 1, Saito discloses:

A recording and reproducing apparatus performing recording and/or reproducing according to a helical scanning system, in which a tape-shaped recording medium is helically wound (abstract) around a head drum (figure 1, item 38) and scanned with a rotating head (column 7, lines 5-10), characterized in that:

A brake arm (figure 2, item 12 & 161) is disposed in proximity to a supply-side reel table (figure 1) with which a supply-side reel (figure 2, item 4) reeling out the tape-shaped recording medium (column 2, lines 35) engages (figure 1, item 161), a brake member is attached on the brake arm (figure 2, item 124) to be swingable and in a state where a swinging center (column 6, lines 44-46) thereof is movable (figure 2, item 12 rotates thereby moving item 20)

Saito fails to specifically disclose:

The brake member is urged by an urging member incorporated on the brake arm in a brake releasing direction; and

When the supply-side reel table is driven to rotate in a direction to take up the tape-shaped recording medium, the brake member moves to a center of the supply-side reel table and is separated from the supply side reel table by the urging member to release the brake member.

Tsunckawa discloses:

The brake member (figure 1, item 13) is urged by an urging member (figure 4, item 18) incorporated on the brake arm in a brake releasing direction (figure 5A, column 5, lines 3-14); and

When the supply-side reel table is driven to rotate in a direction to take up the tape-shaped recording medium, the brake member moves to a center of the supply-side reel table (figure 4, item 13 is centrally disposed to item 8) and is separated from the supply side reel table by the urging member to release the brake member (figure 5A, reel is taking up, column 5, lines 3-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the brake member of Saito with a spring member biasing the brake in the release position, as taught by Tsunekawa, because a negative force can be provided to the reel o keep the tape tightly wound while traveling, as described in columns 4 & 5, lines 55-67 & 1-2.

Regarding claim 2, Tsunekawa further discloses:

The brake member moves in the releasing direction (figure 1, arrow A) when the supply-side reel table is driven to rotate in a taking-up direction in a state where the brake arm is located at an active position and the supply-side reel table receives a braking force from the braking member (column 4 & 5, lines 55-67 & 1-2).

Regarding claim 6, Saito discloses the limitations of claim 6 that are in common with those previously presented in claim 1, and further disclosing:

A supply-side reel table and a take-up side reel table, with which a supply-side reel reeling out the tape-shaped recording medium and a take-up side reel taking up the tape-shaped recording medium engage (column 6, lines 16-18), respectively, are mounted on a slide chassis (column 6, lines 21-26 & 33-35) capable of approaching and separating from the head drum (column 7, lines 13-20);

Saito fails to specifically disclose:

A brake lever is disposed in proximity to the take-up side reel table with which the take-up side reel taking up the tape-shaped recording medium engages, the brake lever releases braking when the reel table rotates in a taking-up direction and performing a braking operation when the reel table rotates in an opposite direction to the taking-up direction; and

Restricting means for restricting the brake lever in an inactive state is mounted on the slide chassis, a release member is mounted on a main chassis on which the head drum is mounted, and restriction of the brake lever by the restricting means is released by the release member when the slide chassis moves to a head drum side.

Tsunekawa discloses:

A brake lever (figure 5A, item 13) is disposed in proximity to the take-up side reel table with which the take-up side reel taking up the tape-shaped recording medium engages (figure 5A, indicated by clockwise arrow), the brake lever releases braking when the reel table rotates in a taking-up direction (figure 5A) and performing a braking operation when the reel table rotates in an opposite direction to the taking-up direction (figure 5B, counterclockwise arrow, columns 4 & 5, lines 55-67 & 1-14); and

Restricting means for restricting the brake lever (figure 4, item 16) in an inactive state is mounted on the slide chassis (figure 4, item 2), a release member (figure 4, item 18) is mounted on a main chassis (column 4, lines 47-52) on which the head drum is mounted (figure 7, item 3), and restriction of the brake lever by the restricting means is released by the release member when the slide chassis moves to a head drum side (figure 5A, column 5, lines 3-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide for the brake to release the reel when rotating to take-up and restrict the reel when loading, as taught by Tsunekawa, because then the reel can properly rotate to take up the tape, and can keep the tape wound snugly when being loaded to the head drum, as described in column 5, lines 1-14 & 40-57.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al, and Tsunekawa, as applied to claim 7 above, and further in view of Suzuki et al (US Patent Number 5992781).

Regarding claim 7, Saito and Tsunekawa disclose the features of base claim 6, as stated in the 103 rejection above, but fail to specifically disclose:

The take-up side reel table is provided with a magnet clutch and a gear; and the brake lever brakes the reel table through the magnet clutch when the brake lever engages with the gear.

Suzuki discloses:

The take-up side reel table is provided with a magnet clutch and a gear (figure 9, items 143 & 144); and the brake lever brakes the reel table through the magnet clutch when the brake lever engages with the gear (column 11, lines 32-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the break with a magnetic clutch, as taught by Suzuki, because this will provide a predetermined tension to the tape, as stated in column 2, lines 46-52.

Regarding claim 8, Saito, Tsunekawa and Suzuki disclose the features of base claim 7, as stated in the 103 rejection above, Suzuki further disclosing:

A brake gear engaging with the gear of the reel table is provided; the brake gear and the brake lever engage with each other with friction (figure 10B, items 144 & 152); a rotation of the reel table is transmitted to the brake lever through the gear and the brake gear; and braking and releasing of the brake lever are performed according to a rotation direction of the reel table (column 12, lines 1-19).

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al, in view of Suzuki et al.

Regarding claim 12, Saito discloses the features of claim 12, that are in common with those previously disclosed in claim 1, as stated in the 103 rejection above, and further disclosing:

A tape cassette (column 1, lines 19-21) wound with the tape-shaped recording medium therein is moved in a direction approaching the head drum by a slide chassis to perform the recording and/or the reproducing with the tape-shaped recording medium pulled out from the tape cassette (column 1, lines 19-22);

A reel brake for braking a reel wound with the tape-shaped recording medium in the tape cassette is provided, the reel brake performing a braking operation when pulling out the tape-shaped recording medium from the reel (column 12, lines 4-16), the reel brake releasing the braking operation when taking up the tape-shaped recording medium (column 16, lines 35-41 & 59-65);

Saito fails to specifically disclose:

Restricting means for restricting the reel brake by coercively releasing the reel brake during a movement of the slide chassis equipped with the tape cassette is provided on the slide chassis; and

Release means for releasing restriction by the restricting means when the slide chassis equipped with the tape cassette moves to a head drum side is provided on a main chassis mounted with the head drum.

Suzuki discloses:

Restricting means for restricting the reel brake by coercively releasing the reel brake during a movement of the slide chassis equipped with the tape cassette is provided on the slide chassis (column 12, lines 19-35); and

Release means for releasing restriction by the restricting means when the slide chassis equipped with the tape cassette moves to a head drum side is provided on a main chassis mounted with the head drum (column 12, lines 1-19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the restricting means and the release means, taught by Suzuki, in the tape drive of Saito, because the proper amount of torque can be applied for rewinding, as stated in column 12, lines 16-18 & 33-36.

Regarding claim 13, Saito and Suzuki disclose the features of base claim 12, as stated in the 103 rejection above, and Suzuki further disclosing:

The reel brake performs the braking operation and the releasing the brake operation according to a rotation direction of the reel (figures 10A & 10B).

Regarding claim 14, Saito and Suzuki disclose the features of base claim 12, as stated in the 103 rejection above, and Suzuki further disclosing:

The reel brake is disposed in proximity to a take-up side reel table (figure 10A).

Allowable Subject Matter

Claims 3-5 and 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 3 recites:

The brake member moves in the releasing direction when the supply-side reel table is driven to rotate through a predetermined angle in the taking-up direction at a time of starting to load the tape-shaped recording medium on the head drum in a state where the tape-shaped recording medium is not taken up by a take-up side reel engaging with a take-up side reel table.

Claim 4 recites:

A pin supporting the brake member on the brake arm is located at a relieved edge of the slide chassis.

Claim 9 recites:

The brake lever and the brake gear are mounted on the slide chassis through a brake holder; and the brake holder abuts against the release member on the main chassis to release the restriction of the brake lever by the restricting means when the slide chassis moves to the head drum side.

These limitations, in combination with the limitations presented in the other claims are neither anticipated, nor rendered obvious by any prior art of record.

The closest reference, Saito et al discloses a break member mounted to the slide chassis that is braking the reel and releasing the reel when the corresponding operations are performed, but does not disclose the detail of predetermined angles or positioning in these claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew G. Kayrish whose telephone number is 571-272-4220. The examiner can normally be reached on 8am - 5pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew G. Kayrish

MGK

6/6/07

6/5/2007

WAYNE YOUNG
SUPERVISORY PATENT EXAMINER